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Frank Lloyd Wright and Le Corbusier, two very impactful names in the history of architecture and two familiar names known throughout the world for their very unique but similar styles, if one could call it that. The world's culture and international style has been a very influential movement in the careers of architects all over the world. Over a couple of decades, it has introduced many new styles and forms of construction and designing. But for Le Corbusier and Frank Lloyd Wright, it has evolved their form of architecture.

Frank Lloyd Wright was a remarkable architect during his period of design. He would dramatically change what the knowledge of the world knew ad modern architecture and the form in which it is created and the atmosphere it creates within a structure. Frank Lloyd Wright was well known for his very geometrical shapes, and his open plans when designing. Such as one of his most famous works, falling water in Pennsylvania. He has shifted the way thousands of architects now think today and his legacy will continue to-do so as time progresses into the future.

Falling water, as most of us may already know, was first designed for a client who loved the scenic view of his most favorite spot in the woods which is exactly where it is build today. His client expressed himself to Frank Lloyd Wright about his passion the involved enjoying himself in the middle of nature with his wife, being by the waterfall and just soaking in the great atmosphere during the day. And of course, this intrigued Frank Lloyd Wright into created a perfect structure, and a perfect design that can sit very well in nature, but can also be incorporated to the layout of the land and combined itself with the waterfall in the area.

Frank Lloyds Wright's style of designing in architecture is well over the most average today. This of course led to many of his works being developed that grabbed attention of not only just architects, but many designers around the world. One can easily say that he probably was one of the founding fathers of modern designing, which he indeed was, but there are a few other architects that fall into that category as well, such as Le Corbusier.

Le Corbusier, a Swiss- French Architect, designer, painter, urban planner, writer, and one of the pioneers of what is now called modern architecture. Le Corbusier was the breakthrough in many designs which are now famous today and still famous for the foreseeable future to come. One of his most famous works is called Ville Radieuse (The Radiant City). As stated by Gill Merin at Architecture Daily "Ville Radieuse (The Radiant City) is an unrealized urban master plan by Le Corbusier, first presented in 1924 and published in a book of the same in 1933. Design contained effective means of transportation, as well as an abundance of green space and sunlight, Le Corbusier city of the future would not only provide resident with a better lifestyle, but would contribute to creating a better society." (Paragraph 1, Sentence 1) At the time, he sought out a grand idea for the better of the community, an area in which hundreds of people can live in a very modern, safe, and grand community. Unfortunately now, what his initial concept was back than in 1924, only about sixty percent of what he initially visualized was used, and is not inhabited for uses of low income housing, or better known as "The Projects".

Although Le Corbusier has a grand idea, it was sought out negatively by others in terms of what he was really looking for in his urban community design. This has yet to define him. Regardless of this design, Le Corbusier goes on to create many beautiful works of structural modern art. One work of magnificent art being the Notre Dame du Ronchamp, more commonly referred to as Ronchamp. In 1950, Le Corbusier was commissioned to design a new Catholic church to replace the previous church that had been destroyed during World War II. The site of the new Catholic Church was originally built on an old site of pilgrimage that was deeply rooted in catholic religion. Eventually because of the building itself and the land in which it was placed on, it was named one

of the most important buildings in the 20<sup>th</sup> century, as well as one of the most important and famous buildings of Le Corbusier career.

The Notre Dame is a significant structure that sits on a hill and is most well known for its intriguing design in aesthetics. It is not really finished, but that's mostly the style of the structure. It has a very interesting roof design. In which it has incorporated a front sweep it reaches the tip of the building, in a way, sort of resembling the hull of a ship at the very top of a hill. As stated by Andrew Kroll at the Architecture Daily "The most striking part of Ronchamp is the curved roof that peels up towards the heavens." The purpose for such an interesting shape is because the roof that has an upwards like sweep, is supposed to represent the design "pealing" towards the heavens. So not only does the roof have a structural purpose intended in the design, but also a symbolic reasoning behind the design. What is also interesting about the roof of this structure is it appears to be floating above the exterior walls where it should be sitting on top of. It creates a 10 centimeter gap that allows light to push its way in, creating a very interesting, interior photo, or satisfying pleasure. The roof is very aerodynamic in design, as one would already know, and it gives off the illusion that the very massive roof is almost, weightless.

As stated by Andrew Kroll at Architecture daily" Notre Dame sits among a wooded terrain secluded from the rest of the commune; the chapel is placed atop a hill on the site setting itself on a metaphorical pedestal giving Ronchamp added importance. Unlike most of Le Corbusier other works consisting of boxy, functional, and sterile volumes, Ronchamp is more of an irregular sculptural form where the walls, the roof, and the floor slope. Stylistically and formally it is fairly complex; however, programmatically it is relatively simple: two entrances, an altar, and three chapels."(Paragraph 5, Sentence 1) Although due to its very complicated figure, it serves one specific purpose, it stands tall as a sculpture to represent worship.

The walls of Notre Dame give the building its sculptural character. The four feet by twelve feet thick, gentle curving walls act as a practical method of supporting the concrete and masonry construction above, as well as the massive curved hull like shaped roof. However, the walls do not solely act as structural and sculptural elements; they also act as acoustic amplifiers, especially in the case of the eastern exterior wall that reflects the sound out over the field from the outdoor altar. For a design of this magnitude, and the use of purpose of why this building was designed, the specifications of the structure fit perfectly well for its intended use. One can easily say, when it comes to designing, Frank Lloyd Wright and Le Corbusier have a lot in common already.

One of the most interesting designs incorporated into the Notre Dame is the window placement on the walls. Le Corbusier implemented small punctured holes on the façade, everywhere for that matter, that amplified the light within the chapel by tapering the window well in the wall cavity. As stated by Andre Kroll "Each wall becomes illuminated by these differing window frames, which in conjunction with the stark white washed walls gives the walls luminous qualities punctuated by a more intense direct light. On the wall behind the altar in the chapel, the lighting effects create a speckled pattern, almost like a starry night, of sparse openings that are complimented by a larger opening above the cross that emits a flood of light, creating a powerful religious image as well as a transformative experience." (Paragraph 8, Sentence 3) The placement of the punctured windows in the design with a sloped like window sill, creates a very abstract form of art when playing with natural lighting, From an interior perspective, once can see the angle of light and how it illuminates the space magnificently, with the combination of the lighting coming from the cross like cavity on the walls, and the gap space between the roof, which creates a very unique illumination combination of lighting for the space and ideally, creating a very tranquil house of worship for religious goers.

When viewing the structure from an exterior perspective, preferably at one point below the hill, it is said that the structure gives off the impression of physical growth and a strong presence in the area. This is naturally due to the combination of the sculptural wall presence itself, the massive roof and how it's set in the design, and the curved walls. Its placement in the area gives a sense of physical dominance and a strong presence in site planning.

The building itself, was derived from many different ideas in Le Corbusier work. It of course, is no doubt part of the international style since it was developed from modern like ideas, but it also carries those same principles as well. Those principles being purity, openness, and a communicable sense of coming together. It has very open plans, and features that stands out that can appear to one as a modern design.

Before Falling water and the Guggenheim, which were 2 of some of the most famous designs that Frank Lloyd Wright has created, this design, the Unity Temple, started out in Oak Park Illinois, where his career was still first launching. Completed in 1908, Unity Temple was a replacement church for Unitarian Universalist Church that had burned down in 1905. The church is declared as an important design for the Modernist movement in the early 20th Century, but it was also the foundation from which the Prairie School would originate into Wright's architectural language. As state by Andrew Kroll in Architecture Daily "The concrete could easily be argued to be part of Wright's abandonment of the stark white New England style as part of a simplification and removal of traditional religious paraphernalia as a way in which to place man at the heart of the temple." (Paragraph 4, Sentence 1) One can already start comparing the similarities between Frank Lloyd Wrights Unity Temple to the Notre Dame. They both use this material of concrete to symbolize a religious presence.

However, in reality, the churches budget was relatively low for a project of this scale for Frank Lloyd Wright, approximately \$40,000. Wright's implementation of reinforced concrete was not only for its economic feasibility, but also for its flexibility in design while also creating a long lasting presence on the site. Although holding a very small budget, Frank made the best out of what he had to create a large structure. Located on a very busy street, it sits now as a massive structure on a very noisy area. Probably most of the reason why no windows were added into the structure, but in fact, they were placed in the recessed areas of the building.

As stated by Andrew Kroll at Architecture Daily "As with some of his later works, Unity Temple is designed as a bipartite building that locates the temple at the center of the building, which connects to a community center through a low level corridor. Even

though, Wright tried to abandon the traditional values of the Unitarian Church, he still placed the temple at the heart of the building suggesting that even though the design of space can ultimately change, the values that are instilled in the space don't have to." (Paragraph 6, Sentence 3) Although he initially wanted to steer his own way in designing the temple, he soon after realized, what was most important in this aspect was the values of this project and the symbolic meaning of what this can bring if the temple was located at the center.

Unlike many other works of Frank Lloyd Wright's designs, he uses a different approach for the Unity Temple. One for example, the iconic buildings that Wright had designed later in the 20th Century, Unity Temple does not employ a low, horizontal profile, rather the space and volume was more important than the walls. But what we can also notice, especially if viewed through an interior perspective, is that he has designed very well the interior aspects and incorporates this same style into all of his designs. It is very common to see, especially in falling water, where he tends to repeat this very abstract geometrical patter and use of wood.

Throughout Frank Lloyd Wright's architecture there is interplay between light and dark, in the material, spatial configuration, and literal means of light. The exterior reads as heavy and opaque where the interior appears to be very open. Inside the temple, the light seems to appear from nowhere flooding the space with light. Since Frank decided to remove all windows looking out into the exterior streets because the level of noise, he decided to create the stain glass windows on the ceilings in a very symmetrical pattern. Incorporated into the stain glass windows, he added hues of green, yellow and brown to invoke the presence of nature within the structure, especially inside the chapel, creating a beautiful pattern of light inside the space, and patterns of symmetrically aligned windows above.

Compared to the visual effects and illusions that the building creates, the interior is actually very small for its size. The seating is within forty feet of the pulpit which reinforces the sense of community that Frank Lloyd Wright had developed for his design Although the illusion that is already given within the structure, of the exterior appearing

very large compared to what's left for the interior, it is in fact the lighting which gives off the impression of a very volumetric room with tons of space, although the reality of it is the exact opposite.

Throughout the building, more so the interior, every detail was designed by Frank Lloyd Wright himself, something he is very well known for in all his designs, designing both the architectural work and the interior spacing as well, which that is not only limited to wall designs, and lighting but the furniture as well. This technique that he uses in his designs greatly amplifies the work that he puts on paper. It allows his creations to come to life, as well as rising up the interior integrity of the space when involving program such as the ambiance he is trying to bring forth in this structure which is religion and worship.

As one can easily analyze, both Le Corbusier and Frank Lloyd Wright have created massive structures for their ideology of what their perspective of a house of worship should look like depending on the environment that it is being set in. Le Corbusier had space in his advantage. He had the liberty of building vertically and horizontally, as much as he wanted, and he could easily incorporate the design and how he wanted to build it, to the advantage of the environment. As he set his in nature, Le Corbusier design was more free form, it has a very own language that would not be commonly found in something similar to Franks work. Because it was in an open environment, it was easier for Le Corbusier to incorporate light as his main source in design.

Frank Lloyd Wright did not have the same advantage of having light as a main source, although it did play a crucial part in his design. He was unfortunately not able to incorporate windows for lighting on the exterior walls because of the noisy surroundings, instead, it played a crucial part as he decided to place them on the ceilings, and playing with the colors of the stain glass, incorporating a very nature like ambiance in the interior space. Although Le Corbusier did not do the same, he had a different approach in bringing in light on several locations, changing the entrances of where the light will

naturally come in, and not in the standard form of designing such as a regular punctured window.

When it comes to design, interior is also a crucial part in architecture. Now in today's date, when we think about architecture, especially for commercial use, your design will always reflect on the rentable square footage and whether the client will inevitable make more money, or lose it in the process when trying to rent. With these two architects, le Corbusier has a very big advantage to that. With having the wide open available space to build horizontally and vertically, he had the ability to shift that into his own personal interest. He fully took advantage of the space, creating a very successful chapel and interior seating for the Catholic Church, while still having a very large exterior open space and entrances. And with a view from a perspective point, one can see the massive sculpture like structure, which gives the impression of a large open interior space with all of the curvature incorporated into the design.

For Frank Lloyd Wrights Design, the exterior of the structural façade was extremely massive, it is every geometrical inscape and gives off the illusion, through a perspective view of course form an exterior point, that the inside interior space would be massive. But in fact, only about half of the space is actually used for the intended purpose of worship. These two works of art that these two architects have built, they may fall under the similar topic, but two separate approaches entirely in design. Le Corbusier had one intended purpose, and that was to focus primarily on the center of the structure, symbolically, which would be where the main area of worship should be which the temple is. Of course the main factor in which gave these two structures the main differences that it unfortunately has now, is the geo location in which they have been selected to be built on. This will always play the most important role in designing any kind of structure.

Geographical location in design is essential, it's the voice that speaks back to an Architect in what one can and cannot build in an area that is available. Le Corbusier had definitely an advantage in designed a modern structure, but at the same time, Frank Lloyd Wright has proved highly in his effort to design a large structure with very limited

spacing, very limited lighting, very limited budgeting and just an overall negative surrounding in terms of noise and area. When pushed into a corner, he was able to develop a well designed structure perfect for its intended use which is still in operation today. This is what truly defines the designer, not when he is given the opportunity to design at his leisure. Which both of these architects had their struggles they have endured when designing.

Le Corbusier and Frank Lloyd Wright have impacted the world in a tremendous amount of ways. Although they have two completely different styles of designing, they used this to their advantage when designing. Based on their designs in houses of worship, one can see that Frank Lloyd Wright, although what was given for this specific design was nothing more than limited space, he used his disadvantages and turned them into an advantage to himself, Similar with Le Corbusier, Although he had all of the advantages for his particular design, he made sure what he implemented in his design, incorporated every single aspect that he could possible think of.

## **Bibliography**

- 1. Architecture Daily <a href="https://www.archdaily.com/411878/ad-classics-ville-radieuse-le-corbusier">https://www.archdaily.com/411878/ad-classics-ville-radieuse-le-corbusier</a>
- 2. Architecture Daily <a href="https://www.archdaily.com/84988/ad-classics-ronchamp-le-corbusier">https://www.archdaily.com/84988/ad-classics-ronchamp-le-corbusier</a>
- 3. Architecture Daily <a href="https://www.archdaily.com/112683/ad-classics-unity-temple-frank-lloyd-wright-3">https://www.archdaily.com/112683/ad-classics-unity-temple-frank-lloyd-wright-3</a>
- 4. Modern Architecture by Alan Colquhoun Chapter Seven